Brenden Forward

Full-Stack Engineer/Developer

Ann Arbor, Michigan
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➢ Summary

A highly motivated full-stack engineer proficient in C/C++, networking and backend development, relational database administration, and frontend with JS/React, aiming to leverage expertise in backend development.

➢ Tech Stack

Programming Languages
- C/C++
- JS/TypeScript
- PHP
- Python
- SQL
- *Learning: Rust, Go*

Web Technologies
- React
- SolidJS
- Node.js
- Prisma
- Material UI
- Discord bots

Specialties
- Networking
- DB administration
- Backend REST APIs
- Chatbots
- Financial & accounting calculations

➢ Work Experience

Univ. of Michigan (Ann Arbor, MI) – **Computer Consultant**   Sep. 2022–Present
- Offered technical support to thousands in U-M's EECS department through its IT dept.
- Managed Linux servers, Windows, Linux, macOS desktops, and networking equipment.

Self-Employed – **Freelance Software Developer**   Jan. 2020–Present
- Freelanced as an independent contractor, focusing on web and backend development.
- Utilized TypeScript, C++, Node.js, and frameworks to create various full-stack apps.

Orbitform (Jackson, MI) – **Software/Web Developer**   June 2019–Aug. 2022
- Developed high-throughput business apps using C/C++, SQL, and PHP; created custom MariaDB extensions in C for improved database performance.
- Led development of robust database backup solution and company-wide intranet app, including financial modules and a ticketing system.
- Worked on development of modern rewrite of in-house CRM managing global customers.

➢ Education

Univ. of Michigan (Ann Arbor, MI) – **Bachelor of Engr., Computer Science**   2026 (expected)
- GPA: **3.44**/4.00
- Relevant Coursework: Data Structures & Algorithms, Computer Organization

Jackson College (Jackson, MI) – **Associate in Applied Science, Software Engineering**   2022
- GPA: **3.97**/4.00

➢ Personal Projects

Remoji Discord Bot – https://remoji.app/   Nov. 2020–Present
- Developed a Discord bot in TypeScript, later rewritten in Rust, serving over 81,000 Discord servers over Discord's REST API, providing image manipulation and embedding features.

MineNode Server – https://mine.js.org/   Oct. 2020–Dec. 2022
- Developed a PoC game server compatible with the Minecraft game client, written in TypeScript, C++, and Rust, using real-time and asynchronous networking.